# Material Safety Data Sheet

## 1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>CORN OIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td>CORN GERM OIL, FATS AND GLYCERIDIC OILS, CORN, LIPOMUL, MAISE OIL, MAYDOL, AZOLA OIL, OILS CORN, OILS GLYCERIDIC CORN</td>
</tr>
<tr>
<td>Material uses</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
| Supplier/Manufacturer | Hankinson Renewable Energy, LLC.  
9230 County Road 1  
Hankinson, ND 58041  
Tel: 701-242-9400 |
| MSDS authored by   | KMK Regulatory Services Inc. |
| In case of emergency | CHEMTREC, U.S.: 1-800-424-9300  
International: +1-703-527-3887 |
| Product type       | Liquid. |

## 2. Hazards identification

<table>
<thead>
<tr>
<th>Color</th>
<th>Clear light yellow.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Oily liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint odor.</td>
</tr>
<tr>
<td>Signal word</td>
<td>CAUTION!</td>
</tr>
<tr>
<td>Hazard statements</td>
<td>MAY CAUSE EYE AND SKIN IRRITATION.</td>
</tr>
<tr>
<td>Precautions</td>
<td>Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.</td>
</tr>
<tr>
<td>OSHA/HCS status</td>
<td>While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.</td>
</tr>
<tr>
<td>Potential acute health effects</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin</td>
<td>Slightly irritating to the skin. His compound may be an allergen.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Slightly irritating to the eyes.</td>
</tr>
</tbody>
</table>

### Potential chronic health effects

| Chronic effects     | No known significant effects or critical hazards. |
| Carcinogenicity     | No known significant effects or critical hazards. |
| Mutagenicity        | No known significant effects or critical hazards. |
| Teratogenicity      | No known significant effects or critical hazards. |
| Developmental effects | No known significant effects or critical hazards. |
| Fertility effects   | No known significant effects or critical hazards. |

### Over-exposure signs/symptoms

| Inhalation          | No specific data. |
| Ingestion           | No specific data. |
| Skin                | Adverse symptoms may include the following: irritation, redness |
| Eyes                | Adverse symptoms may include the following: irritation, watering, redness |
2. **Hazards identification**

**Medical conditions aggravated by over-exposure**: None known.

See toxicological information (Section 11)

3. **Composition/information on ingredients**

<table>
<thead>
<tr>
<th>United States</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Corn oil</td>
<td>8001-30-7</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. **First aid measures**

**Eye contact**: Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

**Skin contact**: In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention if symptoms occur.

**Inhalation**: Move exposed person to fresh air.

**Ingestion**: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Notes to physician**: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. **Fire-fighting measures**

**Flammability of the product**: No specific fire or explosion hazard.

**Extinguishing media**

- **Suitable**: Use dry chemical, carbon dioxide or Halon extinguisher.
- **Not suitable**: None known.

**Hazardous decomposition products**: No specific data.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. **Accidental release measures**

**Personal precautions**: Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**

**Spill**: Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
7. Handling and storage

Handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Canada

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>List name</th>
<th>TWA (8 hours) ppm</th>
<th>mg/m³</th>
<th>STEL (15 mins) ppm</th>
<th>mg/m³</th>
<th>Ceiling ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No known value.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: No special ventilation requirements. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Respiratory: Not required under normal conditions of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure an MSHA/National Institute for Occupational Safety and Health-approved respirator or equivalent is used.

Hands: Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).

Eyes: Safety eyewear should be used when there is a likelihood of exposure. Recommended: Safety glasses with side shields.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. Physical and chemical properties

Physical state: Oily liquid.
Flash point: Closed cup: 254°C (490°F) [Pensky-Martens.]
Auto-ignition temperature: 393.33°C (740°F)
Color: Clear light yellow.
Odor: Faint odor.
Taste: Faint odor.
Melting/freezing point: -17.778 to -10°C (-0.0004 to 14°F)
Specific gravity: 0.916 to 0.921 g/cm³
9. Physical and chemical properties

Relative density : 0.916 to 0.921
Solubility : Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Chemical stability : The product is stable.
Conditions to avoid : On prolonged exposure to air, CORN OIL thickens and becomes rancid. It is sensitive to light.
Materials to avoid : No specific data.
Hazardous decomposition products : When heated to decomposition this compound may emit toxic and hazardous fumes.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity : No specific data.
Chronic toxicity : No specific data.

12. Ecological information

Environmental effects : Not established

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

14. Transport information

DOT/TDG/IMDG/IATA : Not regulated.

15. Regulatory information

United States

HCS Classification : Not regulated.
U.S. Federal regulations : United States inventory (TSCA 8b): This material is listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Corn oil
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Corn oil: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
15. Regulatory information

Clean Air Act Section 602
Class I Substances: Not listed
Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

State regulations:
Connecticut Carcinogen Reporting: This material is not listed.
Connecticut Hazardous Material Survey: This material is not listed.
Florida substances: This material is not listed.
Illinois Chemical Safety Act: This material is not listed.
Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
Louisiana Reporting: This material is not listed.
Louisiana Spill: This material is not listed.
Massachusetts Spill: This material is not listed.
Massachusetts Substances: This material is not listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is not listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is listed.
Rhode Island Hazardous Substances: This material is not listed.

Canada
WHMIS (Canada): Not controlled under WHMIS (Canada).
Canadian lists:
CEPA Toxic substances: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Canada inventory: This material is listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations
International lists:
Australia inventory (AICS): This material is listed or exempted.
China inventory (IECSC): This material is listed or exempted.
Japan inventory: Not determined.
Korea inventory: This material is listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.
Philippines inventory (PICCS): This material is listed or exempted.
16. Other information

United States

Hazardous Material Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

References


Date of issue : 01/11/2011

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.